

Climatology of the United States

No. 20

1971-2000

Station: BAKERSFIELD KERN CO AP, CA

COOP ID: 040442

Climate Division: CA 5

NWS Call Sign: BFL

Elevation: 489 Feet

Lat: 35° 26N

Lon: 119° 03W

Temperature (°F)

Mean (1)				Extremes										Degree Days (1) Base Temp 65		Mean Number of Days (3)					
Month	Daily Max	Daily Min	Mean	Highest Daily(2)	Year	Day	Highest Month(1) Mean	Year	Lowest Daily(2)	Year	Day	Lowest Month(1) Mean	Year	Heating	Cooling	Max >= 100	Max >= 90	Max >= 50	Max <= 32	Min <= 32	Min <= 0
Jan	56.3	39.3	47.8	82	1984	31	53.9	1978	20	1963	13	40.8	1972	521	0	.0	.0	25.8	.0	4.6	.0
Feb	63.5	43.0	53.3	87	1989	22	57.0	1991	25	1990	15	49.0	1990	324	1	.0	.0	27.6	.0	1.0	.0
Mar	68.3	46.2	57.3	92	1969	29	62.8	1972	31+	1966	3	52.4	1999	236	7	.0	.1	30.9	.0	.1	.0
Apr	75.7	49.6	62.7	101	1981	30	68.7	1989	33	1999	10	57.7	1983	119	56	.1	2.4	30.0	.0	.0	.0
May	83.8	56.8	70.3	107+	2001	31	76.5	1992	37	1988	1	61.1	1998	31	205	1.5	9.5	31.0	.0	.0	.0
Jun	91.6	63.7	77.7	114	1976	28	83.7	1981	44	1943	23	70.6	1998	3	392	6.1	19.4	30.0	.0	.0	.0
Jul	96.9	69.2	83.1	115	1950	1	86.2	1982	52	1987	18	76.5	1987	0	577	13.1	28.0	31.0	.0	.0	.0
Aug	95.4	68.4	81.9	112+	1981	9	85.0	1971	52	1942	26	77.6	1999	0	540	10.9	25.6	31.0	.0	.0	.0
Sep	89.4	63.9	76.7	112	1955	3	81.8	1974	45	1948	26	69.6	1986	2	368	4.2	17.6	30.0	.0	.0	.0
Oct	79.5	54.9	67.2	103+	1990	4	73.9	1978	29	1971	30	61.1	1984	55	138	.5	5.5	31.0	.0	.1	.0
Nov	65.3	44.2	54.8	91+	1949	6	61.0	1995	28+	1994	20	48.1	1994	293	2	.0	.0	29.8	.0	.6	.0
Dec	56.1	38.2	47.2	83	1979	3	56.0	1977	19+	1998	23	42.4	1972	536	0	.0	.0	25.7	.0	5.5	.0
Ann	76.8	53.1	65.0	115	1950	1	86.2	1982	19+	1998	23	40.8	1972	2120	2286	36.4	108.1	353.8	.0	11.9	.0

+ Also occurred on an earlier date(s)

@ Denotes mean number of days greater than 0 but less than .05

Complete documentation available from: www.ncdc.noaa.gov/oa/climate/normal/usnormals.html

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1937-2001

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Precipitation (inches)

		Precipitation Totals								Mean Number of Days (3)				Precipitation Probabilities (1)											
														Probability that the monthly/annual precipitation will be equal to or less than the indicated amount											
Means/Medians(1)		Extremes							Daily Precipitation				Monthly/Annual Precipitation vs Probability Levels												
													These values were determined from the incomplete gamma distribution												
Month	Mean	Med-ian	Highest Daily(2)	Year	Day	Highest Monthly(1)	Year	Lowest Monthly(1)	Year	>= 0.01	>= 0.10	>= 0.50	>= 1.00	.05	.10	.20	.30	.40	.50	.60	.70	.80	.90	.95	
Jan	1.18	1.01	1.42	1999	25	3.90	1999	.00	1972	7.0	3.5	.4	.2	.04	.13	.30	.47	.66	.87	1.13	1.45	1.89	2.63	3.36	
Feb	1.21	.84	2.29	1978	9	5.36	1998	.05	1984	6.5	3.4	.6	.1	.07	.14	.29	.46	.64	.86	1.12	1.46	1.93	2.73	3.52	
Mar	1.41	1.29	1.68	1938	3	4.33	1991	.00	1972	6.9	4.0	.6	.0	.12	.28	.50	.71	.92	1.15	1.42	1.74	2.17	2.86	3.53	
Apr	.45	.53	1.00	1943	5	1.31	1988	.00+	1997	3.4	1.4	.2	.0	.00	.00	.00	.11	.22	.33	.45	.60	.78	1.10	1.39	
May	.24	.03	.81	1958	11	2.39	1971	.00+	1999	1.6	.7	.1	.0	.00	.00	.00	.00	.01	.04	.11	.22	.40	.74	1.10	
Jun	.12	.00	1.09	1972	7	1.11	1972	.00+	1999	.6	.3	@	@	.00	.00	.00	.00	.00	.00	.00	.05	.16	.39	.65	
Jul	.00	.00	.30	1965	30	.03	1992	.00+	2000	.1	.0	.0	.0	**	**	**	**	**	**	**	**	**	**	**	
Aug	.08	.00	1.03	1977	17	1.18	1983	.00+	2000	.4	.1	.1	.1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.15	.48	
Sep	.15	.02	.56	1950	17	1.06	1976	.00+	2000	1.2	.5	.0	.0	.00	.00	.00	.00	.00	.02	.06	.12	.24	.47	.72	
Oct	.30	.17	1.51	1940	25	1.82	1974	.00+	1999	1.7	.8	.2	@	.00	.00	.00	.05	.11	.17	.26	.37	.52	.79	1.06	
Nov	.59	.47	1.39	1960	5	1.70	1997	.00+	2000	3.8	1.9	.2	.0	.00	.00	.07	.16	.26	.38	.53	.72	.99	1.46	1.94	
Dec	.76	.73	.98	1992	7	2.03	1995	.00+	2000	5.1	2.2	.2	.0	.00	.09	.22	.35	.47	.61	.76	.95	1.21	1.62	2.03	
Ann	6.49	6.04	2.29	Feb 1978	9	5.36	Feb 1998	.00+	Dec 2000	38.3	18.8	2.6	.4	3.16	3.72	4.47	5.08	5.64	6.21	6.80	7.48	8.34	9.62	10.77	

+ Also occurred on an earlier date(s)

Denotes amounts of a trace

@ Denotes mean number of days greater than 0 but less than .05

** Statistics not computed because less than six years out of thirty had measurable precipitation

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1937-2001

(3) Derived from 1971-2000 serially complete daily data

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Snow (inches)																							
Snow Totals															Mean Number of Days (1)								
Means/Medians (1)					Extremes (2)										Snow Fall >= Thresholds					Snow Depth >= Thresholds			
Month	Snow Fall Mean	Snow Fall Median	Snow Depth Mean	Snow Depth Median	Highest Daily Snow Fall	Year	Day	Highest Monthly Snow Fall	Year	Highest Daily Snow Depth	Year	Day	Highest Monthly Mean Snow Depth	Year	0.1	1.0	3.0	5.0	10.0	1	3	5	10
Jan	.1	.0	0	0	3.0	1999	25	3.0	1999	0	0	0	0	0	.0	.0	@	.0	.0	.0	.0	.0	.0
Feb	#	.0	0	0	#	1990	18	#+	1990	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Mar	.1	.0	0	0	1.5	1974	8	1.5	1974	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Apr	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
May	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Jun	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Jul	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Aug	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Sep	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Oct	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Dec	#	.0	0	0	#	1990	21	#	1990	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Ann	.2	.0	N/A	N/A	3.0	Jan 1999	25	3.0	Jan 1999	0	0	0	0	0	.0	.0	@	.0	.0	.0	.0	.0	.0

+ Also occurred on an earlier date(s) #Denotes trace amounts

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-9/-9.9 represents missing values

Annual statistics for Mean/Median snow depths are not appropriate

(1) Derived from Snow Climatology and 1971-2000 daily data

(2) Derived from 1971-2000 daily data

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Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (thru Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	4/05	3/24	3/15	3/08	3/01	2/22	2/15	2/06	1/25
32	2/24	2/14	2/06	1/31	1/25	1/19	1/13	1/06	12/27
28	1/27	1/18	1/11	1/04	12/28	12/17	0/00	0/00	0/00
24	1/01	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
20	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
16	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
Fall Freeze Dates (Month/Day)									
Temp (F)	Probability of earlier date in fall (beginning Aug 1) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	11/08	11/12	11/16	11/19	11/21	11/24	11/27	11/30	12/05
32	11/15	11/24	12/01	12/06	12/11	12/16	12/22	12/28	1/06
28	12/08	12/15	12/21	12/26	1/01	1/10	0/00	0/00	0/00
24	1/01	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
20	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
16	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	302	289	280	272	265	257	249	240	227
32	>365	350	334	324	316	307	299	290	277
28	>365	>365	>365	>365	>365	362	344	333	321
24	>365	>365	>365	>365	>365	>365	>365	>365	>365
20	>365	>365	>365	>365	>365	>365	>365	>365	>365
16	>365	>365	>365	>365	>365	>365	>365	>365	>365

* Probability of observing a temperature as cold, or colder, later in the spring or earlier in the fall than the indicated date.

0/00 Indicates that the probability of occurrence of threshold temperature is less than the indicated probability.

Derived from 1971-2000 serially complete daily data

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Degree Days to Selected Base Temperatures (°F)

Base	Heating Degree Days (1)												
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	521	324	236	119	31	3	0	0	2	55	293	536	2120
60	386	198	135	62	18	0	0	0	0	30	192	404	1425
57	302	130	84	32	8	0	0	0	0	14	130	317	1017
55	251	94	56	19	5	0	0	0	0	8	97	264	794
50	146	30	14	4	0	0	0	0	0	1	38	152	385
32	3	0	0	0	0	0	0	0	0	0	0	2	5

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	505	605	792	927	1197	1381	1598	1564	1359	1113	704	490	12235
55	16	46	117	247	484	691	885	851	669	402	84	11	4503
57	8	26	80	197	423	631	823	789	609	343	56	6	3991
60	3	9	39	131	334	541	730	696	519	260	26	2	3290
65	0	1	7	56	205	392	577	540	368	138	2	0	2286
70	0	0	1	16	108	256	420	386	232	60	0	0	1479

Growing Degree Units (2)

Base	Growing Degree Units (Monthly)												Growing Degree Units (Accumulated Monthly)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	269	406	553	695	958	1148	1358	1325	1127	874	471	257	269	675	1228	1923	2881	4029	5387	6712	7839	8713	9184	9441
45	146	266	399	545	803	998	1203	1170	977	720	324	133	146	412	811	1356	2159	3157	4360	5530	6507	7227	7551	7684
50	59	133	248	396	648	848	1048	1015	827	565	188	51	59	192	440	836	1484	2332	3380	4395	5222	5787	5975	6026
55	16	52	121	257	493	698	893	860	677	412	86	11	16	68	189	446	939	1637	2530	3390	4067	4479	4565	4576
60	1	9	44	140	344	548	738	705	527	267	25	0	1	10	54	194	538	1086	1824	2529	3056	3323	3348	3348
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	136	221	314	423	610	740	865	850	733	554	265	137	136	357	671	1094	1704	2444	3309	4159	4892	5446	5711	5848

(1) Derived from the 1971-2000 Monthly Normals

(2) Derived from 1971-2000 serially complete daily data

Note: For corn, temperatures below 50 are set to 50, and temperatures above 86 are set to 86

Complete documentation available from:

www.ncdc.noaa.gov/oa/climate/normal/usnormals.html

Notes

- a. The monthly means are simple arithmetic averages computed by summing the monthly values for the period 1971-2000 and dividing by thirty. Prior to averaging, the data are adjusted if necessary to compensate for data quality issues, station moves or changes in station reporting practices. Missing months are replaced by estimates based on neighboring stations.
- b. The median is defined as the middle value in an ordered set of values. The median is being provided for the snow and precipitation elements because the mean can be a misleading value for precipitation normals.
- c. Only observed validated values were used to select the extreme daily values.
- d. Extreme monthly temperature/precipitation means were selected from the monthly normals data.
Monthly snow extremes were calculated from daily values quality controlled to be consistent with the Snow Climatology.
- e. Degree Days were derived using the same techniques as the 1971-2000 normals.
Complete documentation for the 1971-2000 Normals is available on the internet from:
www.ncdc.noaa.gov/oa/climate/normals/usnormals.html
- f. Mean "number of days statistics" for temperature and precipitation were calculated from a serially complete daily data set.
Documentation of the serially complete data set is available from the link below:
- g. Snowfall and snow depth statistics were derived from the Snow Climatology.
Documentation for the Snow Climatology project is available from the link under references.

Data Sources for Tables

Several different data sources were used to create the Clim20 climate summaries. In some cases the daily extremes appear inconsistent with the monthly extremes and or the mean number of days statistics. For example, a high daily extreme value may not be reflected in the highest monthly value or the mean number of days threshold that is less than and equal to the extreme value. Some of these difference are caused by different periods of record. Daily extremes are derived from the station's entire period of record while the serial data and normals data were are for the 1971-2000 period. Therefore extremes observed before 1971 would not be included in the 1971-2000 normals or the 1971-2000 serial daily data set. Inconsistencies can also occur when monthly values are adjusted to reflect the current observing conditions or were replaced during the 1971-2000 Monthly Normals processing and are not reconciled with the Summary of the Day data.

- a. Temperature/ Precipitation Tables
 1. 1971-2000 Monthly Normals
 2. Cooperative Summary of the Day
 3. National Weather Service station records
 4. 1971-2000 serially complete daily data
- b. Degree Day Table
 1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals
 2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data
- c. Snow Tables
 1. Snow Climatology
 2. Cooperative Summary of the Day
- d. Freeze Data Table
1971-2000 serially complete daily data

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normals.html
U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normals/usnormalsprods.html
Snow Climatology Project Description, www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html
Eischeid, J. K., P. Pasteris, H. F. Diaz, M. Plantico, and N. Lott, 2000: Creating a serially complete, national daily time series of temperature and precipitation for the Western United States. J. Appl. Meteorol., 39, 1580-1591,
www1.ncdc.noaa.gov/pub/data/special/serialcomplete_jam_0900.pdf